

NEW SPECIES OF TASMANIAN MOLLUSCA,
WITH CRITICAL REMARKS ON SEVERAL DE-
SCRIBED SPECIES, AND ADDITIONS TO THE
LIST.

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Plates XIV.-XVII.

The species here described include no startling novel-
ties, but are more or less closely related to previously
known forms. They have come from various parts of our
coasts, and from low water mark down to one hundred
fathoms, and may be described as the balance from several
years collecting left after more striking species have been
dealt with. The types of the new species will be presented
to the Tasmanian Museum.

June, 1919.

Callochiton elongatus, sp. nov.

Shell very small, narrowly elongate, girdle rather
broad; rather elevated; the valves distinctly beaked.
Colour—Purplish-brown, lighter on the dorsal area, giving
the appearance of a longitudinal pale band. A co-type has
the 6th and 7th valves mostly pale green and the 2nd
valve with a large whitish blotch dorsally.

Anterior valve semi-circular, slightly beaked, covered
with minute pustules; median valves with lateral areas
distinctly raised, the pleural and dorsal areas are not
separated, except that the low pustules that cover the
whole valve become finer and more longitudinal towards
the ridge. Tail valve with mucro about one-fourth from
the adjoining valve differentiated from the rest of the
valve by a small ridge and very slightly elevated. Girdle
covered with imbricating, elongated, sharp-pointed scales,
and similarly coloured to the valves, but of a lighter shade,
sometimes with paler blotches.

Length 7.4; breadth, 3.6 mill.

Habitat—Norfolk Bay and Port Arthur (E. Mawle).
Seven or eight specimens collected. This beautiful little
species is a very much smaller and narrower shell than *C.*
platessa, Gould; *C. rufus*, Ashby, the type of which I have
seen, is broader still. The present species has for its size
coarser sculpture than *platessa*. It varies much in colour-

ing, but the ground colour seems always to be some shade of purplish-brown. It may be blotched with green and whitish in various degrees of pattern.

Pl. XIV., figs. 1a, 1b.

APATURRIS COSTIFERA, sp. nov.

Shell small, fusiform, white with a broad chestnut band on the centre of the body-whorl. Whorls $5\frac{1}{2}$ rounded, the first two being quite smooth, the rest sculptured with strong, rounded axial ribs, fourteen on the penultimate, sixteen on the body whorl, they fade away a little below the periphery. The base being encircled by numerous fairly strong spiral liræ; the ribs are crossed by very fine, sharp spiral threads. Aperture fairly large, pointed above, broad at the base, where it scarcely becomes a canal; columella excavate, bearing two low tubercles, outer lip rounded and simple.

Length, 4.5; breadth, 2 mill.

Habitat. Type, with five others from about 40 fathoms East of Thoun Bay.

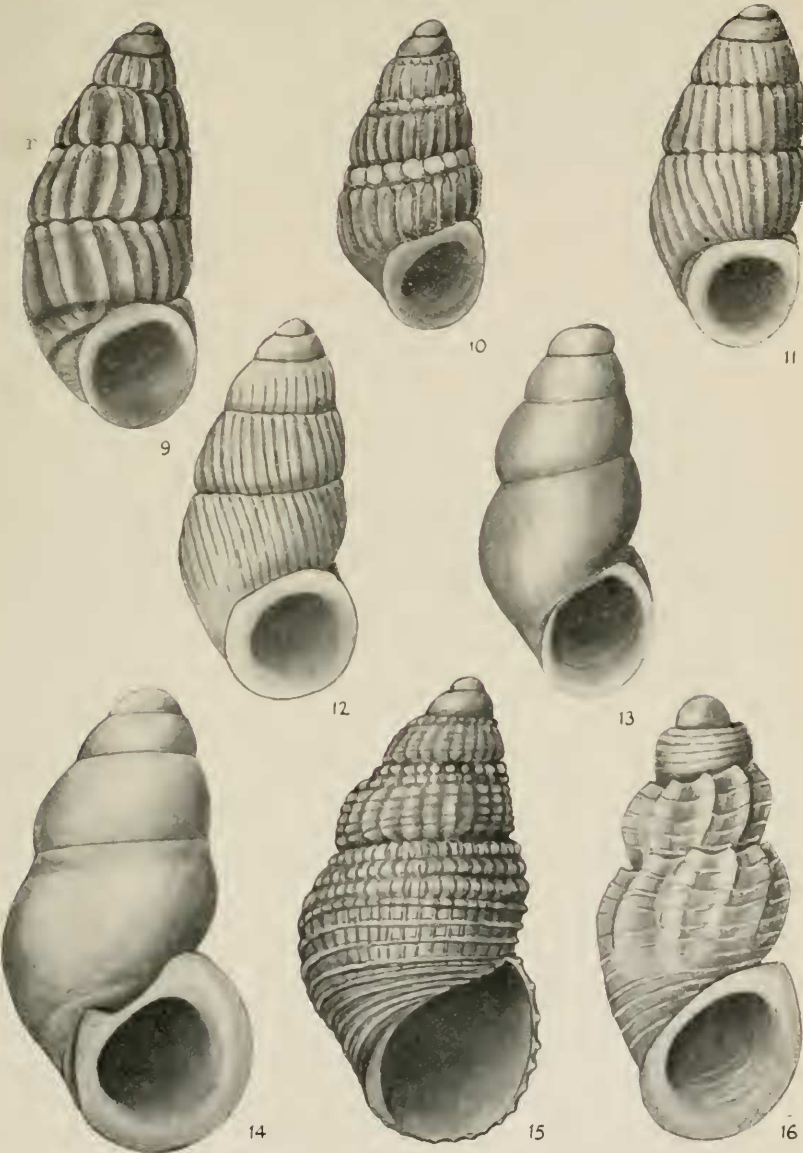
This species closely resembles *Mitromorpha aricostata* Verco. It is, however, a narrower shell, with more rounded whorls, and the spiral liræ are much less strong; it has, too, a more bluntly rounded apex.

Pl. XIV., fig. 2.

NEPOTILLA DIAPHANA, sp. nov.

Shell small, thin, of a semi-transparent texture, colour yellowish-brown, pinkish towards the apex, broadly fusiform, whorls five, including a prominent two-whorled protoconch, which is strongly spirally liræ; the adult whorls much rounded, and strongly cancellate. There is a hollowed space below the suture, corresponding with a shallow sinus, and ornamented by curved growth lines; strong axial ribs cross the whorls and are separated by spaces of about their own width; they number about twenty on the body whorl and fade away below the periphery; they are crossed on the spire by three spirals, less strong than the ribs and about equally spaced, so that square meshes are formed, producing small nodules at the junction. These spirals continue on the base, where they are smaller and closer together. Aperture broad, with a very short open canal, columella excavate, with a narrow callous lip, outer lip rounded, corrugated by the sculpture, with a broad rather shallow sinus at the suture.

Length 4.4; breadth, 2 mill.



Habitat. The type, with five others from Frederick Henry Bay, two others from Thouin Bay, East Coast. All the specimens have been taken from the roots of the giant kelp and have much the appearance of young shells.

It resembles *N. legrandi*, Beddome, more than any other, but is entirely distinct from that species, which is much more strongly sculptured, and has many more spirals.

Pl. XIV., fig. 3.

POLINICES CATENOIDES, sp. nov.

Shell of moderate size, rotund, with a small but sharp spire; umbilicate. Whorls five, rapidly increasing, the last very large, rounded, with a slight depression below the suture. Aperture roundly lunate, rather produced in front, lip thin. Columella a little concave, with a callus partly covering the umbilicus, and developing into a pad where it joins the lip above; the callus has a distinct groove crossing it, at the upper edge of the umbilicus, which latter is of moderate size, deep and perspective. The colour appears to be yellowish-brown, paler below the suture, and on the base, and there are indications of chestnut flames crossing the sutural band, and patches of the same colour on the body whorl. Diameter and height, each 15 mm.

Type with 10 others, mostly small, from about 60 fathoms South of Port Arthur and one from 100 fathoms East of Cape Pillar.

This species is remarkably like *P. catena*, da Costa, from Northern Europe, so much so, that it is at first difficult to see any differences. However, the umbilicus is rather smaller, and the front of the columella more produced; it is rather broader, has a depression below the suture, a furrow on the columella, and probably the colour is different. Compared with *P. anlaceglassa*, Pils. and Van., it is a much rounder shell, and lacks the heavy pad over the umbilicus, besides being much smaller. I have known this species for a considerable time, but hesitated to describe it, hoping for better examples; such, however, have not yet come to hand. All my specimens are dead, and most have lost their colour, but some show traces of coloration as above described. It is possible it reaches a considerably larger size, as none of mine appear to be quite adult. Its station would appear to be from about 50 to 100 fathoms.

Pl. XIV., fig. 4.

MARGINELLA OBESULA, sp. nov.

Shell very small, broadly ovate, translucent white, with a distinct, but blunt spire of two whorls. Aperture narrow above, but widening rapidly towards the rounded front. Columella convex; the first plait, which is a continuation of the front of the shell, is large, strong, and curved. The next above is much smaller and rather close to the first, above are four minute plaits, which reach quite two-thirds up the columella. Outer lip thickened, incurved in the middle, where it is armed with about nine minute teeth.

Length, 2; breadth, 1.4 mill.

Types, with six others, from Frederick Henry Bay, one other from Port Arthur. Whilst this resembles such relatives as *M. shorehami*, Prit. and Gat., it nevertheless has some good points of difference, and these are emphasised by the very peculiar animal, which, showing through the translucent shell, exhibits a bright orange colour, curiously netted with white lines, each bordered with black, empty shells show no traces of this peculiar ornamentation, which must belong to the animal. In our other small species the animal usually appears black or horny.

The habitat is also peculiar. Most of the specimens have been taken from roots of the giant kelp, showing it to inhabit rocky bottoms.

Pl. XIV., fig. 5.

MARGINELLA RINGENS, sp. nov.

Shell very small, broadly pyriform, pure white, semi-transparent, with an exsert, but very small spire of two whorls, which has a tilt towards the right. Aperture broad, especially towards the rounded front. Outer lip solid, shouldered, and much curved above, but straight on its inner side, where it bears about six small denticles rather irregular in size and spacing. Columella convex, but rather straight in its middle part, and carries about six plaits, of which the first is a long, upward sweep from the base; the next two are well developed, those above being much smaller.

Length, 1.8; breadth, 1.2.

Type from Kelso, Tamar Heads, collected by the late Aug. Simson; another exactly similar from the Petterd collection, probably from the same locality; and eight others from 40 fathoms off Thouin Bay, which differ slightly in having more minute denticles on the lip, but are otherwise the same.

This is very close to *M. angasi*, Crosse, of which it may be a variant. It is more broadly shouldered, with a larger aperture, and has the toothed outer lip.

Pl. XIV., fig. 6.

MARGINELLA MULTIDENTATA, sp. nov.

Shell small, white, broadly-ovate, spire hidden, aperture rather wide. Columella convex, bearing about nine main plications, of which the anterior three are the strongest; there are several small subsidiary teeth between the upper ones. Outer lip rises above the summit; is strongly thickened and armed inside with about ten minute denticles.

Length, 1.5; breadth, 1.2 mill.

Type, with three others from about ten fathoms, between Gordon and South Bruny, D'Entrecasteaux Channel.

This species is nearest related to *M. thouniensis*, May; it differs in being shorter and broader, having a wider aperture, stronger dentition, and the crenated outer lip. The small intercalated teeth have not been noticed in any other Tasmanian Marginella.

Pl. XIV., fig. 7.

MARGINELLA INCERTA, sp. nov.

Shell minute, smooth, white, opaque, ovate; spire small but distinct, of two whorls. Aperture narrow above, almost linear for half its length, then widening to the rounded front. Outer lip moderately thickened, slightly curved, smooth within. Columella convexly rounded, with two distinct plaits, rather near together, of which the anterior is the stronger.

Length, 2; breadth, 1.6 mm.

Type, with five others, from about 40 fathoms off Thoun Bay. This species closely resembles *M. freycineti*, May, in size and shape; it has more spire, is broader, with a more curved columella, and only two plaits.

Pl. XIV., fig. 8.

Iredale in Trans. N.Z. Inst. for 1914, p. 457, proposed a new genus *Esta* for a Rissoid group, and mentions *Rissoa columnaria*, Hedley and May, as a good representative. We have a large number of species, which seem to fall naturally into Iredale's genus. There are some seventeen Tasmanian named species, and others not yet

described, that I can so place, only two or three of which are somewhat abberante. Amongst them is a little subgroup of four species, closely allied to each other, upon which I now offer some observations, describing one as new.

ESTEIA TUMIDA, Tenison Woods.

Described in these proceedings for 1875, p. 147, as *Diala tumida*, a figure was given by Tate and May for this species, Pl. xxvi., fig. 67, which, however, is not correct, but represents a nearly related species, which I am dealing with later.

A careful examination of the types (two specimens) preserved in the Hobart Museum, and which are very bleached, show it to be a good species, and of which I have taken a fair number of specimens, always from the roots of the giant kelp; fresh shells are of a pinkish tinge, and have a narrow chestnut band below the suture, and two on the body whorl, one at the periphery, and the other on the base. These bands are characteristic.

The ribs are also broad, strong, and oblique. I present a figure from a specimen compared with the type.

Pl. XV., fig. 9.

ESTEIA OLIVACEA, Dunker (*Rissoa*).

Rissoa diemenensis, Petterd, is an absolute synonym, as Tate and May correctly determined, the type being preserved in the Hobart Museum. This species differs from *E. tumida* in its more squat shape, and more numerous ribs, which are narrower and straight; they also form a nodular bead below the suture. It is common at Tamar Heads, but seems absent from the South, where its place is taken by the next species.

Pl. XV., fig. 10.

ESTEIA KERSHAWI, Tenison Woods (*Rissoina*).

Rissoina kershawi, Tenison Woods, P.R.S. Vict., 1877, p. 57. This was united with *E. tumida*, by Tate and May, but examination of the types in Melbourne Museum shows it to be a distinct, but closely related species. It has three adult whorls, instead of four, the ribs are straighter, and much more numerous, and the mouth is not so round, and it lacks the colour bands; the usual colour is yellowish-brown, with a pale band below the suture. It is found in the Derwent Estuary and D'Entrecasteaux Channel, and is common at Tamar Heads, with *E. olivacea*, which it closely

resembles, but may be distinguished by its more cylindrical form, more numerous ribs, and the absence of the sutural bead.

Pl. XV., fig. 11.

ESTEA MICROCOSTA, sp. nov.

Shell small, rather pupoid, solid, pinkish, the apical whorls are the darkest, the last half of the body whorl nearly white. Whorls five, rounded. The first two form a smooth proto-conch; the three adult whorls are regularly axially ribbed, with very fine sharp ribs, which are somewhat oblique, and become evanescent on the base. Aperture almost round, lip expanded all round.

Length, 2.5; breadth, 1.2 mill.

Type, with a number of others, from 100 fathoms seven miles East of Cape Pillar. This is closely related to *E. kershawi*. It differs principally in the much more numerous and finer ribs, and rounder mouth, and its rather more cylindrical form. *E. tasmanica*, Tenison Woods (*Entima*), is much larger, more pyramidal, with excavate sutures.

Pl. XV., fig. 12.

ESTEA PERPOLITA, sp. nov.

Shell small, white, highly polished, elongate, blunt, the apex being much flattened. Whorls four and a half, rounded, especially the penultimate; suture well impressed; mouth roundly ovate, lip a good deal expanded.

Length, 1.8; breadth, 1 mill.

Type, with 12 others, from 50 fathoms off Thouin Bay, and three from 100 fathoms off Cape Pillar.

A species principally distinguished by its rounded whorls, flattened summit, and high polish, and differs from its near relative *E. rubicunda*, Tate and May, in being shorter and blunter.

Pl. XV., fig. 13.

ESTEA LABROTOMA, sp. nov.

Shell minute, conical, solid, yellowish-brown, smooth, shining. Whorls four, rounded, suture well impressed, the body whorl being rather restricted below the suture. Aperture roundly ovate, oblique, surrounded by a very broad expanded lip, which has a curious deep indentation where it joins the body whorl. This remarkable feature is diagnostic.

Length, 1.4; breadth, .7 mill.

Type, with 14 others from Frederick Henry Bay, taken from roots of the giant kelp.

Pl. XV., fig. 14.

MERELINA SCULPTILIS, sp. nov.

Shell solid, broadly ovate, cream coloured, imperforate; whorls five, rounded, the first two forming a smooth proto-conch. Suture well defined by a deep channel. The adult whorls are crossed by radials, which are strong, and predominate on the two upper whorls, but grew finer and much more numerous on the body whorl. These are crossed by spirals, which from being at first inferior, become on the body much the stronger. The body whorl carries about thirteen spirals, of which the upper three are large, rounded, and noduled by the axials. The lower spirals are narrow, and scarcely affected by the ribs, which fade at the periphery. Seven spirals cross the ribs on the middle whorl, of which the one above the lower suture, and the two below the upper suture are the stronger, the latter forming rows of nodules; the third whorl is similar. Aperture ovately-pyriform, the columella, which is not continuous, is rather expanded anteriorly; outer lip thin, dentated by the sculpture.

Length, 3; breadth, 1.5 mill.

Type, with three others, from 50 fathoms off Thouin Bay.

From its nearest relative *R. filocincta*, Hedley, it may be distinguished by its flatter whorls, much more numerous axials, the strong beaded spirals on the shoulder, the channelled sutures, the discontinuous peristome, and the sharp outer lip.

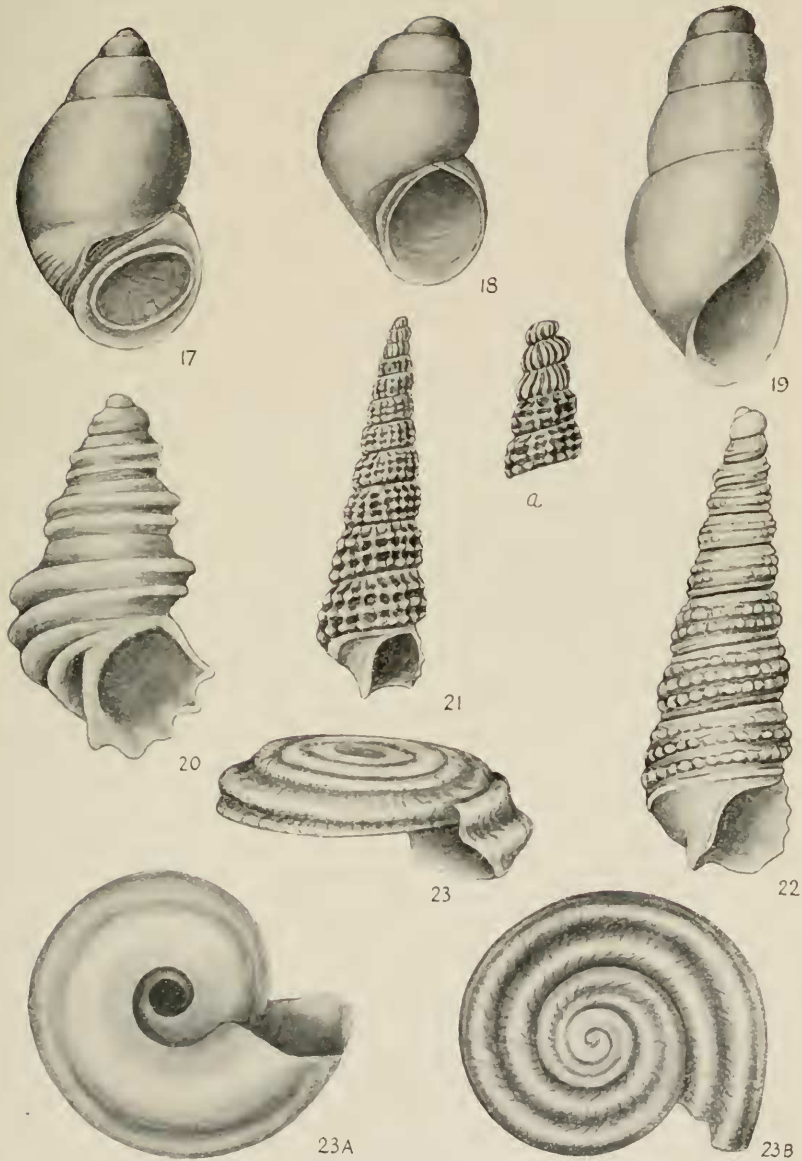
Pl. XV., fig. 15.

HAURAKIA SUPRACOSTATA, sp. nov.

Shell small, rather elongate, yellowish white, semi-transparent; whorls four, rounded, suture deeply impressed. The apical whorl is small, dome shaped, and smooth; the next is tabular and finely spirally grooved; the last two axially ribbed with strong oblique ribs, which bend towards the left at the suture. There are about six on a half-turn of the whorls; they fade away below the periphery, and are crossed by fine distant liræ, which are scarcely raised, and show as white opaque lines on the translucent shell. Aperture roundly pyriform, lip expanded and continuous, projecting beyond the whorl posteriorly.

Length, 1.7; breadth, .8 mill.

Type, Frederick Henry Bay, taken from a root of the giant kelp. Three others from 40 fathoms off Thouin Bay;



a very distinct little species. I place this in *Haurakia* with some diffidence, but it seems to come closer to such species as *H. strangei* than any other forms.

Pl. XV., fig. 16.

AMPHITHALAMUS LUTEOFUSCUS, sp. nov.

Shell minute, turbate, smooth, lustrous red-brown, with the first half of the body whorl and mouth, yellow, also a light band below the suture. Whorls four, much rounded, body whorl large in proportion. Aperture: The actual opening is small, oval, and set very obliquely to the spire; it is surrounded by a raised edge or keel. The peristome, which is continuous, is broadly pyriform, expanded and planulate, recessed towards the aperture; it is projected somewhat from the base of the shell, which is sub-umbilicate. The operculum is thin, semi-transparent, and appears to be subspiral.

Length, 1; breadth, .6 mill.

Habitat. Type, with several others, from Kelso, near Tamar Heads, collected by Augustus Simson.

This minute shell is in size and general appearance similar to *A. jacksoni*, Brazier, but differs sufficiently in the details of the mouth, and also in the coloration; it is in some respects still more like *A. atropurpurea*. That, however, is a much more ventricose and massive shell, which does not seem to have been heretofore recognised as a member of this genus, although it is extremely characteristic, and closely allied to *A. jacksoni*.

Pl. XVI., fig. 17.

NOTOSETIA PURPUREOSTOMA, sp. nov.

Shell minute, bluntly turbate, smooth, polished, pale rose colour, lip rose-purple. Whorls three, much rounded, suture impressed. Aperture, roundly oval, lip continuous, with a thickened edge, and reflexed on the columella side.

Length, 1; breadth, .8 mill.

Type, with a dozen others, from Penguin, in shell sand. It has a superficial resemblance to *Amphithalamus atropurpurea*, Frauchenfeldt, from which the latter's typical aperture at once separates it.

Pl. XVI., fig. 18.

RISSOPSIS BREVIS, sp. nov.

Shell very small, cylindrical, blunt, smooth, pure white, pellucid. Whorls, four and a half, rather rounded,

suture impressed, apical whorls much flattened. Aperture pyriform; outer lip thin and sharp, somewhat expanded anteriorly.

Length, 2; breadth, .8 mill.

Type, with two others, from 40 fathoms off Thoun Bay, one other from off Arch Island, D'Entrecasteaux Channel.

I place this with *Rissoopsis*, as it seems congeneric with the species assigned to that genus by Professor Tate, a location which I think requires confirmation.

Pl. XVI., fig. 19.

LIPPISTES CONSOBRINA, sp. nov.

Shell small, whitish, smooth, pyramidal, umbilicate. Whorls four or five, including a smooth proto-conch of about two turns. The adult whorls are encircled by two strong keels, the upper of which is the larger, and is a little above the centre of the whorl. These keels are separated by a furrow of about their own width. There are two additional keels on the base, the anterior of which encircles the umbilicus, which is deep, but rather narrow, and separated from the aperture by a strong columella pillar. Aperture rounded, outer lip strongly dentated by the keels.

Length, 3; breadth, 1.5 mill.

Type, with three others, from 40 fathoms three miles East of Schouten Island.

In these proceedings for 1910, p. 309, I recorded this species as *L. gracilentia*, Brazier. I have since had an opportunity of examining Brazier's type, which shows that the two forms are specifically distinct, *gracilentia* being much larger and more attenuate in the spire. Our shell comes between this and *L. zodiacus*, Hedley, which is similarly sculptured, but is only half the length, and has a different apex.

Pl. XVI., fig. 20.

CERITHIOPSIS APICICOSTA, sp. nov.

Shell small, elongate, or narrowly pyramidal, whitish. Whorls eleven, including a three-whorled proto-conch, which is strongly axially ribbed. Adult whorls moderately rounded, suture well impressed; sculpture, three nodulous keels of about equal size and distance encircle the whorls. They are separated by a deep groove, across which the nodules are connected by low axial ridges. There is a

smooth keel on the base, which is otherwise plain. Aperture subquadrate? (rather broken), with a short anterior canal. Outer lip dentated by the sculpture.

Length, 7; breadth, 1.6 mill.

Type, from 100 fathoms seven miles East of Cape Pillar. Several others, mostly juvenile, from about 40 fathoms off Thouin Bay. This species is rather nearly related to *C. trisculpta*, May, which was described from a half-grown shell. It is narrower, with weaker sculpture and a different, though somewhat related proto-conch, which seems to separate it from all other species.

Pl. XVI., figs. 21, 21a.

CERITHIOPSIS MAMILLA, sp. nov.

Shell small, pale brown, pyramidal. Whorls nine and a half, rounded, including a smooth, bulbous proto-conch of about two whorls. Adult sculpture consists of three main keels, which are more or less nodulous, the central one being rather the largest. They are separated by equal sized, smooth spaces. There is a small smooth keel below the others, which shows very distinctly on the base, which is smooth. Aperture subquadrate, inner lip very concave, outer lip dentated by the keels. There is a short anterior canal. The keels on the upper whorls are almost or quite smooth. As growth proceeds they become faintly, irregularly nodulous. On the three last whorls the nodules are more distinct.

Length, 5; breadth, 1.4 mill.

Type, with ten others, from about 40 fathoms off Thouin Bay, East Coast.

Whilst the shape of the shell is fairly constant, and the pullus always the same, co-types show considerable variation in the sculpture; whilst most are similar to the type, they may be almost destitute of nodules, or there may be three strongly nodulous keels on all the adult whorls.

Pl. XVI., fig. 22.

ORBITESTELLA IREDALEI, sp. nov.

Shell minute, discoidal, smooth, white, spiro flat. Whorls about three and a half, square in section, bicarinate, the upper carina at the angle being the largest, and forming a spiral keel on the flat summit to the apex. The flattened part of the whorl between the angle and the suture is roundly elevated; base margined by the lower keel, otherwise smooth except for lines of growth, which are in evidence over the whole shell, broadly, per-